

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

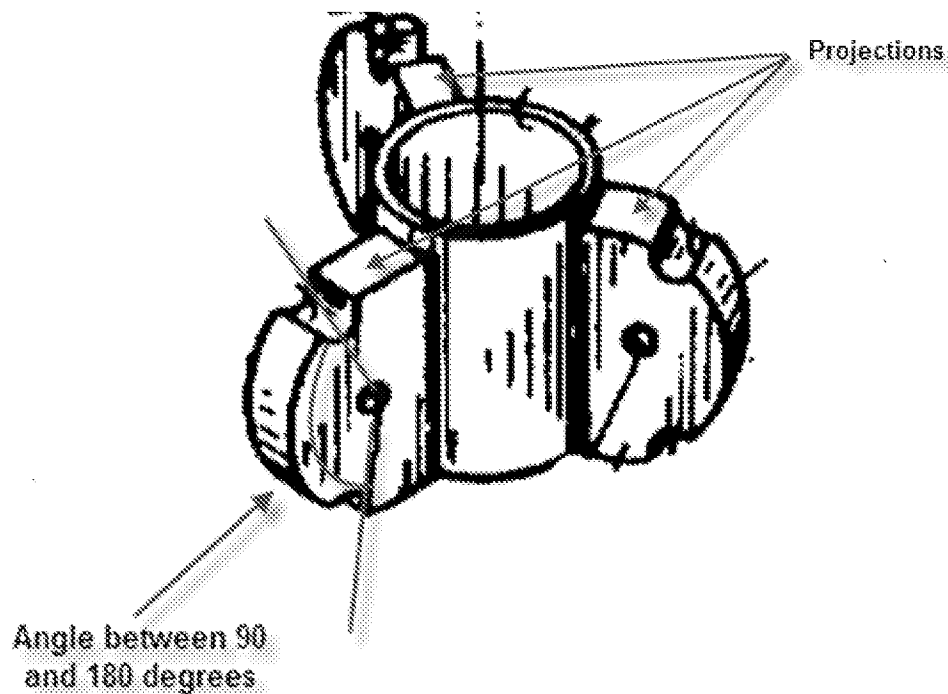


Fig. 2

2. Claims 1-8 and 11-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Lai U.S. Patent 5,082,221 (hereinafter Lai).

3. Regarding the claim limitation “for a head mounted in the spider,” as stated in Claim 1, this is being construed as functional language since it does not include a

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positive recitation of a head actually being present, but the support merely intended to be used to support a head. As stated below, the vertical tubular support is capable of supporting a head thus meeting the claim language. It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. ***Ex parte Masham, 2 USPQ2d 1647 (1987).***

4. Regarding Claim 1, Lai teaches:

- **A compact tripod (Fig. 1) including at least three legs (leg members, 3 Fig. 1) converging in a spider (connector, 2 Fig. 1) to which the legs are hinged at one end through corresponding hinge means (arcuate lug, 22 Fig. 2) and counter means (forked joint, 31 Fig. 3), and a support (vertical tubular support, 1 Fig. 1) for a head mounted in the spider in a position such that the support projects from the spider on the side opposite the legs when the tripod is open in an operating position, As can be seen in Fig. 1, the support (1) extends from the connector opposition the legs, and in which hinge means and counter means are designed to allow the legs to be folded back from that part of the support when the tripod is closed in a non-operating position, By pulling on the two side end portions (40) of the pin (4), the user disengages the pin from the positioning recesses (222 and 223) the legs are therefore capable**

of being positioned in a non operating or folded position, **and the hinge means and counter means comprise toothed means** (positioning recesses, 222 and 223 Fig. 2) **and corresponding stop means** (pin, 4 Fig. 3) **for the toothed means which are capable of interacting together to limit the extent by which the legs open with respect to the spider.** As stated above the pin engages the positioning recesses to hold the legs in a certain position.

5. Regarding Claims 2 and 3, the claimed invention is taught as discussed above and Lai further teaches:

- **The hinge means and counter means are designed to permit relative rotation between the legs and the spider through an angle of between 90° and approximately 180.** As schematically shown in annotated figure 2, the two positioning notches (222 and 223) are positioned at an angle greater than ninety degrees from each other but no greater than one hundred and eighty degrees with respect to the pivot hole (221). Therefore the legs are permitted to rotate about the spider between the range of ninety degrees and one hundred and eighty degrees.

6. Regarding Claims 4, 11 and 12, the claimed invention is taught as discussed above and Lai further teaches:

- **the toothed means comprise a plurality of teeth** (positioning notches, 222 and 223 Fig. 2) **angularly offset with respect to each other on the hinge means of one piece with the spider**, As schematically shown in Fig. 2, the hinge means is connected as one piece with the connector (2) and the notches are angular offset along the arc established with the pivot hole (221) as the center, **the hinge means being a hinge sleeve**, regarding the claim limitation a sleeve, the arcuate lug is being interpreted as a substantial sleeve member since it is substantially circular and extends outwards from a body, **and the stop means comprise a lever** (side end portions, 40 Fig. 2) **with a shoulder** (neck portion, 40a Fig. 2) **which can be moved on the leg into positions such that it selectively abuts against one of the teeth to limit the angle through which the leg opens**. As schematically shown in Fig. 1, the user pulls on the end portions (40) and disengages the neck portion (40a) with the recesses (222 and 223), when the end portions are released, the neck portion is then enabled to engage the recesses and limit the angle to which the legs are positioned.

7. Regarding Claim 5, the claimed invention is taught as discussed above and Lai further teaches:

- **The teeth are positioned on projections coaxial with the hinge sleeve.** As schematically shown in annotated figure 2, the positioning recesses are positioned along the edges that project from the connector (2) on the top and bottom, and are central the axis established by the pivot hole (221).

8. Regarding Claims 6 and 13, the claimed invention is taught as discussed above and Lai further teaches:

- **a free length (arcuate cam portion, 220 Fig. 2) is provided on the hinge sleeve which does not interfere with the stop means so that when the stop means are positioned on the free length the legs can be folded back between the operating position and the non-operating position.** When the pin (4) is removed from the recesses (222 and 223) and placed up against the arcuate cam portion (220) the pin is able to freely move along this portion since there are no recesses located on it. Therefore the legs are capable of being moved between operating and non operating positions when pulled from the recesses or rested along the arcuate cam portion.

9. Regarding Claims 7 and 14-15, the claimed invention is taught as discussed above and Lai further teaches:

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- **the lever is provided with an operating appendage which is accessible from the side opposite the spider when the legs are in the operating position.** Since pin (4) as shown in Fig. 4 has its outer end portions (40) extending outside the periphery of the joint, they form appendages for which the user can pull on them to disengage the pin from the recesses. In Fig. 4 the fingers of the user are shown by reference numerals F and M. Where the user engages the end portions is opposite the connector (2) as shown in Fig. 3, since it is on the side adjacent to the legs (3).

10. Regarding Claims 8, 16-18, the claimed invention is taught as discussed above and Lai further teaches:

- **the lever is resiliently stressed** (tensioning spring, 4 Fig. 2) **towards a position in which it engages with a tooth distance from the free length** (Col. 2 Lines 48-50).

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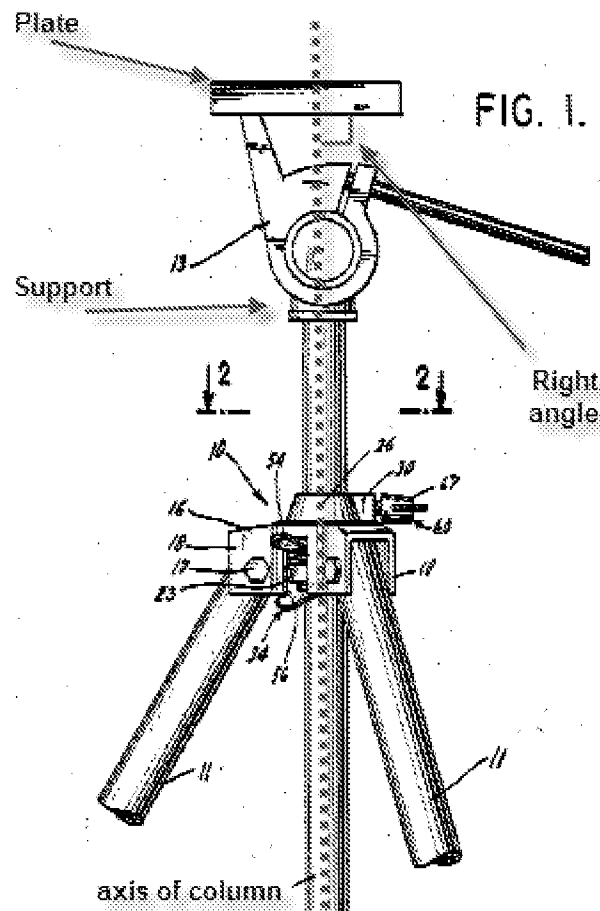
11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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12. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.



13. Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lai in view of Neuwirth U.S. Patent 2,940,709 (hereinafter Neuwirth).

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14. Regarding Claim 9, the claimed invention is taught as discussed above but Lai does not teach the support mounted being mounted on a column which is movably engaged in the spider in an adjustable manner. However, Neuwirth teaches a support (see annotated figure 1) mounted to a column (shaft, 12 Fig. 1) which is movably engaged in a spider (head, 10 Fig. 2) in an adjustable manner (Col. 2 Lines 7-11). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the support structure as taught by Neuwirth to the adjustable leg assembly as taught by Lai since Neuwirth states in Col. 1 Lines 37-40 that such a modification would enable the user to quickly and easily adjust the camera to any desired vertical height.

15. Regarding Claim 10, the claimed invention is taught as discussed above and Neuwirth further teaches:

- **Said head (carrying bracket, 13 Fig. 1) fitted to the said support, is provided with a plate (see annotated figure 1) which can be orientated substantially at right angles with respect to an axis of the column (see annotated figure 1) when the tripod is closed in the non-operating position.** As schematically shown in Fig. 1 as well as annotated figure 1, the plate is substantially at a right angle with respect to the shaft (12) and since the position of the shaft is not directly related to the positioning of the legs (11), the plate is capable of remaining at a right angle to the shaft when the legs are collapsed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER GARFT whose telephone number is (571)270-1171. The examiner can normally be reached on Monday-Friday/7:30AM-5PM-1st Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. Allen Shriver can be reached on 571-272-6698. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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